



Professional Contractors  
& Engineers Incorporated

**DNR GREEN OFFICE BUILDING  
JEFFERSON CITY, MO  
PROJECT NO. X0056-01  
April 17, 2003**

**INDOOR AIR QUALITY MANAGEMENT PLAN**

In accordance with Specification Section 01360, Paragraph 1.2, B.4, we are establishing this Indoor Air Quality Management Plan to prevent problems resulting from the construction process and to sustain long-term installer and occupant health and comfort. These goals are set forth in the specifications and require a commitment by all associated with maintaining the air quality inside the building during construction.

Items and activities specifically identified to be a part of this plan include:

**HVAC REQUIREMENTS:**(Environmental Engineering, Harold G. Butzer, and PCE)

**1. DUCTWORK & ACCESSORIES DURING DELIVERY AND STORAGE:**

Environmental Engineering and Harold G. Butzer, those involved with the ductwork fabrication and installation of ductwork on the jobsite, shall insure that ductwork and accessories delivered to the site are protected with plastic to insure that dust, moisture and other contaminants are not allowed to penetrate any surfaces or inside the duct during storage on site prior to installation. This shall also pertain to diffusers, grilles, insulation, etc. Where parts are shipped in boxes, they shall remain sealed until time for installation. Boxes shall be stored together and covered with plastic as an additional protection against dust and contaminants.

**2. DUCTWORK & ACCESSORIES AFTER INSTALLATION:**

Once the ductwork and accessories are installed, all openings shall be covered or sealed with plastic to prevent dust, dirt, moisture, or other contaminants from getting inside the duct or penetrating other materials. This is extremely important during operations such as drywall sanding, etc. General contractor shall make every effort to keep a clean workplace to eliminate as much as possible, the dust and contaminants referred to in the section..

HVAC Equipment unloaded on site and stored outside shall be covered with tarps or plastic to prevent any dust or moisture infiltration prior to installation. Units shall be inspected to insure they are tight and sealed. Covering shall not be removed until ready for installation. Once installed, any openings shall be covered with plastic until startup.

**\*\*Environmental's representative along with our Superintendent shall be responsible for periodic inspection to insure the integrity of the sealed material. Immediate action shall be taken to correct any leaks or problems.**

**3. START UP OF HVAC UNITS**

During startup of the units, provide filter media over openings in return and supply air ductwork to prevent dust, moisture, or other contaminants from being sucked into the ductwork. Filter media with a minimum of 30 percent dust spot efficiency on the supply openings where possible. Filter media with a 60 percent efficiency or more over the return air openings making sure return air is not allowed to pass around the filter media. Where possible, outside air will be used and the return air will be sealed off to prevent any exposure to building dust or contaminants. Air inlets and outlets will not be installed in the duct system prior to the "Building Flush-out" to avoid damage to or contamination of the grilles, registers, and diffusers.

The filter media will be inspected periodically or not less than monthly to insure they are not full of dust and need replacement. More often inspections will be required where dust is a problem. Replacement filter media shall be available on site.

**4. OUTSIDE AIR**

Environmental will have units utilize 100% (or as much as practical) outside air when units are run to minimize the return air sucking dust and contaminants into the system. In no instance may the unit be run without the filters and other seals in place to protect the integrity of the system. Return Air Dampers and Grilles shall be closed and "sealed" with plastic or other means to prevent dust and contaminants from being sucked into the system.

**5. OCCUPANCY INSPECTION**

Prior to occupancy, Architect and Owner shall inspect all surfaces for dust and contaminants and if any excessive dirt, dust, or contaminants are found, it shall be cleaned by an expert in such work.

**6. FINAL FILTER INSTALLATION**

New filters shall be installed immediately prior to owner occupancy. Filters shall be as specified in Division 15.

**AIR QUALITY MANAGEMENT PROCEDURES FOR ALL SUBCONTRACTORS**

1. Subcontractors and installers shall utilize products that emit low quantities of VOC's as specified in the contract documents. These include but are not limited to the following:
  - A. Solvents
  - B. Caulking Products
  - C. Carpet
  - D. Adhesives (all types)
  - E. Paints and Coatings
  - F. Composite Woods
  - G. Agrifiber products
2. During any demolition, insure proper ventilation and mask protection for workers and where possible exhaust dust to outside. Install temporary partitions to limit where dust might go during any demolition.
3. Keep any containers of paints, solvent or other VOC emitting liquids closed unless in use.
4. Protect all items that might absorb moisture stored on site covered and protected with plastic or tarps. Inspect often to insure moisture is not infiltrating the material.
5. PCE will provide ventilation during and after installation of interior wet products such as paints and special coating.
6. Dry packaged products shall be removed from packing and allowed to ventilate in an area designated by the General Contractor prior to installation. It shall be in a temperature controlled space between 60 and 90 degrees and be well-ventilated and free from other contaminants such as dust, etc. The location of this space for ventilation of dry packaged materials shall be approved by the Architect. Where possible or practical, it should be done outside the building limits.

7. This is a new facility and demolition is not anticipated but where it does occur, provide adequate dust partitions to limit the spreading of dust and protect other workers.

#### **HOUSEKEEPING (PCE and All Subcontractors)**

1. Once building is enclosed, keep any standing water cleaned up to prevent mold and mildew growth. Anyone seeing standing water should notify the Superintendent immediately. Where water is the result of a craft or trades work, it shall be their responsibility to clean it up immediately.
2. Once the building is enclosed, use dust and sweeping compounds to minimize the amount of dust stirred in the building.
3. All subcontractors are required to remove their trash to the appropriate waste recycle storage container.

#### **SCHEDULING OF WORK (All Subcontractors)**

1. Any subcontractor working with high VOC emitting products and activities shall schedule the activity to be completed during other than normal working hours to protect other workers on site. This should be brought to the attention of the Superintendent and scheduled accordingly.

#### **BUILDING FLUSH-OUT REQUIREMENTS (Environmental Engineering and PCE)**

1. There will be a building flush-out for two weeks after all painting, carpeting, vinyl flooring and base, cabinets, and countertops have been installed and before occupancy.
2. During this period, the HVAC System will be run a maximum amount of outside air possible using new MERV 13 filtration media. These filter do not need to be replaced upon occupancy.

This Indoor Air Quality Management Plan Affects all Subcontractors and ultimately the end user of the building. Copies of this will be distributed to all subcontractors offices and the foreman for the various crafts will be given a copy when he arrives on site. He will be required to sign a copy in PCE's Field Office indicating he has read and understands his responsibility in the overall Air Quality Plan.

These Subcontractors include:

**Professional Contractors & Engineers**

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**Lawrence Pest Control**

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**Drilling Service Company**

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**Jefferson Asphalt Company**

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**I & I Works**

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**Schrimpf Landscaping**

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**Taos Construction**

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**Ceco Concrete Construction**

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**Condev Concrete Construction**

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**A & W Steel Construction**

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**Hathman Masonry**

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**A & H Steel Erectors**

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**Fab Building Center**

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**Galyon Lumber Company**

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**S & W Waterproofing**

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**George McDonnell & Sons**

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**Natsch & Company**

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**Boone Construction Company**

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**Roberts Loading Dock**

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**Brady's Jefferson City Glass**

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**Braun Plastering**

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**National Floor Coverings**

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**Lubbert Floors**

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**Golterman & Sabo**

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**W & W Painting**

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**CT Flooring**

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**Flooring Systems**

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**T & G Specialties**

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**Riley, Bernard, O'Connell**

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**Bi State Loading Dock**

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**Evan Corporation**

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**Woodard Contract**

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**Schindler Elevator**

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**Ecton & Associates**

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**Jayhawk Fire Sprinkler**

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**Environmental Engineering**

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**Harold Butzer, Inc**

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**Richard A. Howerton, Inc**

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**Robbins Lightning, Inc**

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**(Blanks provided for additional subcontractors on site not noted above)**

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We appreciate the cooperation of all the subcontractors and remind them that this is a requirement of the contract documents and will be strictly enforced. Failure to meet the Air Quality Criteria may result in being ask to leave the project and will be grounds for withholding payment for failure to comply with contract documents.

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\*\*\*copy of this will be mailed to home offices of all subcontractors noted.